

**National Transportation Safety Board
Washington, DC 20594**

Brief of Accident

Adopted 04/23/2003

CHI00LA312 File No. 13235	09/14/2000	Belleville, MI	Aircraft Reg No. N806BF	Time (Local): 22:15 EDT		
Make/Model:	Cessna / 208B			Fatal	Serious	Minor/None
Engine Make/Model:	Pratt & Whitney / PT6-114A		Crew	0	0	1
Aircraft Damage:	Substantial		Pass	0	0	0
Number of Engines:	1					
Operating Certificate(s):	On-demand Air Taxi					
Name of Carrier:	Thunder Aviation Acquisition					
Type of Flight Operation:	Non-scheduled; Domestic; Cargo					
Reg. Flight Conducted Under:	Part 135: Air Taxi & Commuter					
Last Depart. Point:	Same as Accident/Incident Location			Condition of Light:	Night	
Destination:	Bedford, IN			Weather Info Src:	Weather Observation Facility	
Airport Proximity:	On Airport			Basic Weather:	Visual Conditions	
Airport Name:	Willow Run Airport			Lowest Ceiling:	None	
Runway Identification:	Unk/Nr			Visibility:	10.00 SM	
Runway Length/Width (Ft):	Unk/Nr			Wind Dir/Speed:	290 / 008 Kts	
Runway Surface:	Unknown			Temperature (°C):	54	
Runway Surface Condition:	Unknown			Obstr to Vision:	None	
				Precipitation:	None	
Pilot-in-Command	Age: 49			Flight Time (Hours)		
Certificate(s)/Rating(s)				Total All Aircraft:	4390	
Airline Transport; Flight Instructor; Multi-engine Land; Single-engine Land				Last 90 Days:	186	
Instrument Ratings				Total Make/Model:	76	
Airplane				Total Instrument Time:	462	

The airplane sustained substantial tail section damage on contact with the ramp surface while standing on the ramp. The flight encountered a shift in cargo on takeoff roll, aborted its takeoff, and taxied back to the ramp where its tail contacted the ramp on engine shutdown. The pilot was uninjured. A FAA inspector's record of interview stated, "According to [the pilot], prior to this incident only three to four straps were used. ... [The pilot] went on to explain that the cargo shifted upon the takeoff roll. ... Upon returning to the ramp he shut down the engine and that's when the aircraft fell on its tail. ... He also said that he was glad that it didn't happen after he had rotated because he was sure that he would have been a fatal accident." A FAA inspector's record of interview stated, "[The witness] stated that when the aircraft sat on its tail, [the Fixed Base Operator (FBO) there] was asked to unload the cargo, which only had one strap holding it down, the 'D' ring had come loose from the floor attachment, and that the cargo was still on rollers under the skid. [The witness] stated that they initially loaded the cargo on the aircraft only, and that the pilot was the one that secured the cargo prior to the incident. After the incident [the FBO] un-loaded the cargo on request of the pilot ... and then was asked to reload the cargo by [the pilot] because the pilot stated something about a hernia. [The witness] stated that the only way they would load the cargo on the airplane again was if they loaded and secured the cargo per their procedures because when [the pilot] secured the cargo he only used one strap and left the load on the rollers. ... [The witness] stated that the plane departed the airport with the cargo about 45 minutes after the accident." The NTSB Materials Laboratory Factual Report number 01-069 stated, "Examination of the plunger revealed that there were portions of the pin in each end of the pin hole. The portion that would have retained the plunger over the body was missing. ... The distance from the lowest point on the plunger pin ... to the underside of the plunger ... was measured and found to be 0.684 inches. The fracture face, [of one of the roll pins], displayed a shiny granular appearance typical of a brittle fracture. ... The side view ... illustrates the plunger in its lowest position with the pin contacting the bottom of the stud body

Brief of Accident (Continued)

CHI00LA312

File No. 13235

09/14/2000

Belleville, MI

Aircraft Reg No. N806BF

Time (Local): 22:15 EDT

hole.... In this position there is a gap of 0.09 inches between the bottom of the plunger ... and the bottom of the stud body...."

Brief of Accident (Continued)

CHI00LA312
File No. 13235 09/14/2000 Belleville, MI Aircraft Reg No. N806BF Time (Local): 22:15 EDT

Occurrence #1: CARGO SHIFT
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. (C) CARGO/BAGGAGE - SHIFTED
 2. (C) SECURITY OF CARGO - IMPROPER - PILOT IN COMMAND
 3. (F) MISC EQPT/FURNISHINGS,CARGO RESTRAINTS - FAILURE
-

Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: STANDING

Findings

4. TERRAIN CONDITION - GROUND

Findings Legend: (C) = Cause, (F) = Factor

The National Transportation Safety Board determines the probable cause(s) of this accident as follows.
the pilot's improper securing of the cargo that led up to the cargo shift during takeoff roll. A factor was the cargo restraint failure.